An Essay
on
Conception.

Among the various subjects of Medical science, which for centuries past, have engaged the attention of man, none has excited more his interest & curiosity than that of animal conception or fecundation. And probably no subject in the physical world, has caused more ingenious hypothetical speculations, than that which is the theme of the present dissertation. I say hypothetical speculations, for to use the words of the American Sydenham, "all beyond a certain sphere on this subject must be conjecture." But conjecture here as well as on other abstruse subjects is not only admissible, but even commendable. This however is not again to be founded upon conjecture, but if possible to be deduced from facts & experiments; from experiments not incompletely or partially made, but from those performed by a hand conducted with all imaginable,

nicety & attention. But unfortunately, experiments can not possibly made, to conduct us far on this thorny path, intersperse with roses; & for this deficiency we are willingly lead to embrace conjecture.

The difficulties however which hover around this gloomy subject should not in the least intercept our experimental enquiry, & if any one should say its want of practical utility, should render it less worthy the object of our attention, I would only reply to such an objection, that the practical use of no one fact can be ascertained, untill the fact itself be known. This then instead of becoming a barrier, should indeed become a stimulus to our exertions. On the subject now before us, a vast deal still remains to be learned, & when I say it is a physiological point worthy of emolition, I say it without any apprehension of contradiction; for all the faculties & operations of the body, nay even life itself must be traced back to that period when from a rude, lifeless & chaotic mass, was hurled into existance one of the greatest & most choice

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productions of nature. These considerations must & even will excite the admiration of the lovers of physiology & philosophy & render it a subject worthy of their examination. It is not to be expected however (let my love for the subject be ever so great) that my weak pen, conducted by so feeble a hand, should shed much light on the matter now under consideration, particularly when we reflect that the laborious productions of the ingenious & the great have still left it to be considered as one of the Arcana of nature.

I intend in the prosecution of this essay, first, to say a few words on the anatomy & physiology of some of the female parts of generation, then in the second place consider some of the latest & most predominant theories of conception & in the third & last place with diffidence offer my own ideas on that subject, as shown from reading & observation. I shall in the whole consult as much brevity as well may be consistent with the object of the paper. I am then agreeably to the order proposed, in the first place, to say a few words on the Anatomy & Physiology of

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some of the female parts concerned in this important process. The first thing here, which would appear naturally to engage our attention is the Uterus. This viscus seems to perform the most important part in this operation of operations. The Uterus is a hollow muscle situated in the cavity of the pelvis, between the bladder & the rectum, & held in that situation principally by means of four ligaments, called lata & rotunda. It has been compared in its unimpregnated state, to a pear somewhat flattened before & behind, with what is called its neck lying most inferior & terminating in what is called the vagina, with an open mouth. The Uterus is of, considerable thickness (varying however in different ages) & endowed, of course, with no little of that power inherent in muscles, denominated by physiologists contractility. This viscus has received several divisions, as, body, fundus, neck, & angles. The two parts denominated (but I think improperly) the superior angles, are perforated by two ducts, which will easily admit a hog's bristle. These ducts are the Tal-

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-opian tubes of Anatomists. They are two conical tubes with their apices turned towards the uterus & terminating in the other extremities by fimbriæ or fringes. These ducts run through the ligamenta lata which are duplicatures of the peritoneum, & while some of these fimbriæ lye loose in the cavity of the pelvis, others come in contact & are firmly attached to two bodies denominated the ovaria. The last mentioned bodies are of whitish appearance & oval shape & situated on each side of the fundus of the Uterus. They are connected to the uterus by a kind of short ligament & the ligamentum latum on each side. These bodies are placed between the lamina of the ligamenta lata. They are compond of several little balls or semitransparent vesicles & denominated from their shape & supposed functions the ova. The number of these ova, are different according to different anatomists, but the truth of the matter is that they vary in different women & in the same woman at different times. Conception always diminishes their number,

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& from this circumstance the fluids of them are very justly supposed, to be the rudiments of fetuses.

The Vagina the last genital part, upon which I have now first to observe is a canal leading down from the neck of the Uterus to the opening in the external parts of generation which we receive the semen of males. This canal may be considered as musculo membranous & includes between the rectum & bladder above & between the urethra & rectum below. In the young virgin Body & particularly in the foetal, a fold of partial perforation is made between the internal & external parts of generation, by a circular membrane called the hymen. This hymen begins to diminish as the subject advances in years for the transmission of menstrual blood, & probably for the admission of the seminal fluid, to the Uterus.

At the period of the female life denominated by medical men puberty considerable changes take place in this delicate system by which immaturd

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was to consider some of the latest & most predominant views in concession.

The first favorite theme upon which I would venture to cast a reflection, is the theory of Dr. Darwin. The writings of this distinguished physician have caused the admiration of the world. But among the various attractive subjects which he has attempted as elucidations of his theory, none seem of immediate interest was not the least important. That animal life is the form of a living, organized being, the power which it is not certain, we know, is the cause of the phenomena in question. This is merely a fine word, but the notion involved in the word, & the thing was an idea, & not a conception of an instinct fact. In fact we know the idea of the animal organization; first that living organs have been by successive minute changes evolved from inorganic; secondly, that by living organs from the stagnation of the parts of the animal, we mean in this instance exactly the object of the idea, & an actual contact with each other in the production of an image, the not inactivity of the animal economy. The idea is not necessarily as it was seen before to be, or that not necessarily, or that it is a fact. It seems that we are authorized to conclude

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to be concluded that fossils exist in the rock, because living forms were discovered in the sea, we conclude that vinegar & sugar exist in the rock because living species of vinegar & sugar flourish & depend upon the fermentation of living animal matter. This argument then of Darwin shows instead of confirming his favorite theory, rather to exclude it on the plausible grounds not less, sometimes with a logical reason. If his doctrine be true living species must beyond the power of adjustment to the new circumstances, & not, to conclude from the existence of living species have arisen by mere accidental ambiguities, but in keeping the line of analogy in the whole of nature, he would conclude that the same order of nature was followed in animals of a higher form. Those together with many other objections which might be made, on the irrelevant side of the question, are, doubtless, in the mind of the patrons of this theory.

In reasoning on this subject, there is a tendency in the minds of men to [illegible] in the [illegible] of physiology, to found in some of a [illegible]; [illegible] the [illegible] of [illegible] to [illegible]. But the chemical doctrine which for a long time [illegible] such a clamor both at home & abroad is [illegible] inconsistent.

[illegible] [illegible] [illegible] of an [illegible]. If [illegible], however, the would not [illegible] with any of these a column [illegible] [illegible] to increase the [illegible] with [illegible] [illegible]. [illegible] [illegible] the attempt a consideration of all these con[illegible] [illegible] [illegible] that [illegible] would not only be [illegible] to the use of a large volume, but I should [illegible] nearly complete [illegible] to the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] which the [illegible] of the [illegible] would [illegible] to require; I should induce [illegible] [illegible] [illegible] involved in a labyrinth from which [illegible] [illegible] [illegible] could not be easily extricated. [illegible] therefore in the [illegible] [illegible] attempt the examination of [illegible] [illegible] [illegible] most [illegible] [illegible] [illegible]. The first of [illegible] [illegible] my attention [illegible] be [illegible] [illegible] the [illegible] of [illegible]. The [illegible] [illegible] [illegible] of [illegible] [illegible], are [illegible] [illegible] [illegible]; the [illegible] of which [illegible] there is a direct communication between the vapour [illegible], the [illegible] [illegible] [illegible] the [illegible] being obtained from [illegible] [illegible] is [illegible] [illegible] the [illegible] only [illegible]

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the medium of the great circulation. This circulation of respiration altho' its proofs are obvious & strong to the eyes on which it is built, many & powerful, still is rendered somewhat ambiguous from many other equally well known facts & observations. But can the same cause — is not one required, other than the heart — be taken in this doctrine? Yes he is. I want the ~~[illegible]~~ of lungs, question to offer a single objection against or even pause a moment to doubt its accuracy? Yes, I am not an anatomist, I'd be, but what is field better, I am intimidated to be the first over conscious exposition of this or is rather hinting that I am happy, to be the first investigated what is the reason of a circulation of the blood of a tolerable circulation." The first argument in support of this doctrine is that transverse sections have been made in direction, where the cavities of the blood-vessels were completely obliterated; this we do not ordinarily to deny or doubt, for we have seen it to be so; but our explanation of this a knowledge of

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[illegible] I must [illegible] that the membrane called the hymen does not form a complete partition between the external [illegible] [illegible] [illegible]tion; but that there is a hole or perforation in the middle through which the menses [illegible] an outlet [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible] that [illegible] [illegible] that [illegible] of anything [illegible] [illegible] [illegible] [illegible] the least perforation in the [illegible] [illegible]; [illegible] [illegible] [illegible] that there was some [illegible] [illegible] [illegible] coition; for it is well known that this membrane [illegible] [illegible] destroyed by [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] next [illegible] [illegible]tion. And when we consider the [illegible] great [illegible] which must be made [illegible] the [illegible] of the male [illegible] [illegible] the [illegible] [illegible] [illegible] of the [illegible] embraces we [illegible] not conclude that the hymen must [illegible] [illegible] [illegible] [illegible] [illegible] that those cases [illegible] [illegible] women [illegible] [illegible] [illegible] [illegible] con[illegible] [illegible] [illegible] the [illegible] [illegible] [illegible] absolute.

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passing in the pleura, when they with eyes on obtained their union accounts.

We find reason, which we laid down operates very much on the one immediately succeeding; N it we about to one we will be necessarily led to the other in the other.

Our counter thing is the demonstration, is the manner in which the ova are impregnated, this is the point on which all the disputes at late years turned. It is necessary for the semen to be in contact with the ovaria, and if it is how does it assume action? Such of the questions I have already answered in the preceding, it now remains for me to annex a view of those reasons which have influenced me in my opinion. In a past age, the Abbe Spallanzani was led by his experiments, first in the generation of the species frogs, that the seminal juice was found required to be in contact with them, from this we may infer that, some thing must be placed in the matrix. Say we have a reason that the semen

were come in contact with the mucus in question, & that it is
owing to this to means of the fallopian tubes, because ~~the~~ defi
ciency of mucus the here died in the act of coition. Now from
the Ovum & Fallopian tubes it indeed was so. Now if this
be an inference both the Lizzy & Thistle's reasoning
a strong argument in corroboration of the Fallopian theory.
I let me preclude Dr. Dunl. in not dissected the dates
mind his out the time & the list of experiment. In order to
the accomplishment of the design to take a young dog and
confine her. Having made an incision through abdomen
muscle, one horn of uterus was tied over the fallopian
tube. He made an incision through about a half an inch
from and near the middle, without detaching or injuring
that with of the ovarian. The internal wound being
healed, the uterus again introduced into the compound
uterus & made. The animal explicitly was killed
three or in the last demonstrated in this operation;
in other the frequently recovered the intercourse state
that yet the fecundation proves completely disabled.

is to, not a doubt can be found, but that the opinion propounded by Doctor Kerr from the year 1795 to the present day with the same result. Even my intimacy and familiarity with Doctor Kerr will I am sure, have very great influence in the minds of every an impartial person. But with the experiments from Dr. Fay, not from the Doctor Kerr must even be in contact with the ovaria in conception as that it is carried to them by the fallopian tube. I shall do for the conception in question by the mobility either direct or indirect, it costs some time. When the ovaria are in, or the fallopian tubes, and have conceived an extraordinary process towards, have for the result — the human mind. Is it or is it from the dependence — Again if it was brought near by sympathy, could it not have taken place equally well in other circumstances? Why Doctor is such as may day, will both remove of an objection which might have been raised, namely that the sympathetic between the uterus & ovaria was continuous & by cutting out a portion of

the tubes we took was the medium of communication between them & thereby prevented that sympathetic operation of the ovaries necessary for impregnation. This is evidently in the first weight of this objection determined to repeat his experiments, & not modified. This was effected by tying a few fibres from the fallopian tubes & making an incision into them, by which means a cicatrix which entirely destroyed the cavities of the tubes & rendered the animals as in the former experiments sterile. [illegible] the same [illegible] sympathy alone, could not return, & yet in action, for if it could it would have been accomplished in those cases for the uterine medium in remaining was still remained. It is hence & therefore we have adduced, we also, to the fallopian tubes a thoroughly circle of carrying the fluid to the ovaria, & the impregnated ovum to the uterus; but this is no more than what is provided in Dawson & others to every part of the skeleton system. Is the ovum taken into the fallopian tubes by capillary attraction? & is it thrown into them by the ovum from the uterus into violent contractions?

In that thing to which I would wish to call some attention is that the impregnated ovum is taken up by the fallopian tubes

deposited in the Uterus, there to receive its future nourishment & growth, I am induced to believe this first, from fœtuses being sometimes found in the tubes themselves; second, that it is so, we infer from the passage of eggs in fowls, down to the Uterus by these tubes. Third, that if the fœtus is formed as we have endeavoured to prove in the ovaria & is then found in the Uterus, then it must follow as necessitate rei, that it must have passed thro' these tubes since there is no other avenue thro which it could have passed. That the fœtus thus converges into the uterus, & there receives its nourishment from the mother is acknowledged by all. But the manner in which this performed has not been satisfactorily demonstrated by any one. Is it from imbibition of the liquor amnii, or is it from superficial absorption of this liquor? Does the gradual elimination of this liquor render one of these opinions probable? Or is this nourishment of the fœtus carried on by the umbilical chord, or is it by the whole & each of these modes in succession? These interrogatories I leave to refer to the candid reader himself for a decision, as I feel myself incompetent to the task. With these simple remarks I submit with with great diffidence this short & imperfect essay, to the examination of my beloved Professors, from whom I with gratitude acknowledge I have received my greatest part of knowledge on this & all other medical subjects.

Randu. H. Norris.

An Inaugural Dissertation

on Conception

by John H Quinn

1814.